



(12)

## EUROPEAN PATENT APPLICATION

(21) Application number: 86309657.4

(51) Int. Cl. 4: C07D 213/80, C07D 237/24,  
C07D 213/82, C07D 213/30,  
C07D 237/08, C07D 213/26,  
C07D 213/36, C07D 471/04,  
A61K 31/44, A61K 31/50,  
//(C07D471/04,221:00,209:00)

(30) Priority: 12.12.85 GB 8530602

(43) Date of publication of application:  
15.07.87 Bulletin 87/29

(64) Designated Contracting States:  
AT BE CH DE ES FR GB GR IT LI LU NL SE

(88) Date of deferred publication of the search report:  
22.02.89 Bulletin 89/08

(71) Applicant: FUJISAWA PHARMACEUTICAL CO., LTD.

3, Doshomachi 4-chome Higashi-ku  
Osaka-shi Osaka 541(JP)

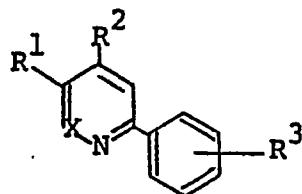
(72) Inventor: Takasugi, Hisashi  
No. 14-33, Hamaguchinishi 1-chome  
Suminoe-ku Osaka 559(JP)  
Inventor: Kuno, Atsushi  
No. 5-C-309, Hanjo 3-chome  
Mino Osaka, 562(JP)  
Inventor: Sakai, Hiroyoshi  
No. 28-134, Kowada-Hirao  
Uji Kyoto, 611(JP)  
Inventor: Sugiyama, Yoshie  
No. 2-1, Nakayama-Sakuradai 5-chome  
Takarazuka Hyogo 665(JP)  
Inventor: Takaya, Takao  
No. 5-87, Suimeidal 1-chome  
Kawanishi-shi Hyogo 666-01(JP)

(74) Representative: Pennant, Pyers et al  
Stevens, Hewlett & Perkins 5 Quality Court  
Chancery Lane  
London, WC2A 1HZ(GB)

EP 0 228 845 A3

(54) N-containing heterocyclic compounds, processes for the preparation thereof and composition comprising the same.

(57) An N-containing heterocyclic compound of the formula:



wherein R<sup>1</sup> is lower alkyl optionally substituted with hydroxy, halogen or a heterocyclic group, carboxy, esterified carboxy, carbamoyl optionally substituted with heterocyclic(lower)alkyl or lower alkylamino(lower)alkyl, N-containing heterocycliccarbonyl optionally substituted with lower alkyl, or ureido optionally substituted with lower alkylamino(lower)alkyl, and

R<sup>3</sup> is hydrogen or halogen;

R<sup>2</sup> is phenyl substituted with nitro, and

X is =N- or



in which R<sup>4</sup> is lower alkyl or halo (lower) alkyl, or is taken together with R<sup>1</sup> to form an N-containing heterocyclic group optionally substituted with oxo and lower alkylamino(lower)alkyl; or

R<sup>2</sup> is lower alkyl, and

X is



in which R<sup>4</sup> is phenyl substituted with nitro; and a pharmaceutically acceptable salt thereof, processes for the preparation thereof and composition comprising the same.



EP 86 30 9657

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
	No relevant documents have been disclosed -----		C 07 D 213/80 C 07 D 237/24 C 07 D 213/82 C 07 D 213/30 C 07 D 237/08 C 07 D 213/26 C Q7 D 213/36 C 07 D 471/04 A 61 K 31/44 A 61 K 31/50 // (C 07 D 471/04 C 07 D 221:00 C 07 D 209:00 )
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			C 07 D 211/00 C 07 D 211/00 C 07 D 237/00 C 07 D 471/00
	The present search report has been drawn up for all claims		
Place of search	Date of completion of the search	Examiner	
BERLIN	22-11-1988	LEONARD	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			